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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SUBJECT	Motorlet, National Enterprise, Jan Sverma Plant in Prague-Jinonice	DATE DISTR.	26 January 1955
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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

1. The attachment is a sketch of the Motorlet factory in Prague-Jinonice.[1] The factory grounds are about 250 meters long and 300 meters wide nd contain the following ten buildings:

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1) Guard building at main entrance, and personnel department

2) Factory kitchen and mess hall

3) Iranian building with four production departments

4) New building

5) Buildings 1 - 5

6) Foundry

7) Instrument and propeller building (the name was assigned when the factory was still producing propeller engines)

8) A concrete building

9) Annealing and testing building

10) Shipping department

2. The plant has a guard platoon consisting of eight men. The guards are armed with pistols and wear dark uniforms. They guard the entrance to the factory and check passes. Passes authorize the bearer to go to his place of work, to whatever subsidiary installations he has to visit, and to the factory mess; other installations may not be entered. There is a watchtower twenty meters high equipped with a searchlight and field glasses, where three soldiers are always on duty. It is not known what type of weapons they are provided with. The eight-man factory guard is on duty 24 hours a day.

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(NOTE: Washington distribution indicated by "X"; Field distribution by "#".)

3. The following is a description of the individual buildings shown on the attachment:

1) The guard building is new, built in 1952. It is one story high and contains the savings bank, the personnel department, club rooms, and six entrances for employees and one gate for automobiles.

2) The factory kitchen and mess is also a new building constructed in 1952. It consists of only one story and a terrace. It contains a cafeteria for about 500 people, a modern kitchen, a public room, and a cellar.

3) The Iranian building was originally constructed for Iran for export. It is one story high and contains the following four departments:

I. Department I produces turbine rotors; that is, discs and blades from chrome nickel steel. These items are also polished in Department I. The Department contains old English and German machines as well as a few new single-purpose machines from the USSR; the new Russian machines are used principally in producing the blades. Department I is under Skala (fnu).

II. Department II produces compressor rotors. The main compressor wheels are produced on the assembly line under Wolf (fnu). The first machine work is done on Bulard vertical lathes, which are produced in the U.S. and are the best machines in the workshop. Other vertical lathes from the USSR do not work as well and often have to be repaired. The milling machines are single-purpose machines of Czech origin from Kurim.[2] The lathes in the department are the old Czech Vollman lathes. The wheels are polished in a very primitive fashion by hand, using emery cloth, felt, and hand polishing machines; this work is done only by women. The production line under Votava (fnu) produces rotor compressor drive shafts (hridel rotoru kompressom), driving pins (hnane cepy), balls and sockets (kulove cepy), ball and socket covers (viko kuloveho cepu), covers (pouzdra), and various types of support rings (operne krouzky). This work is done on old Pittler, Lamson, Gildemeister, and Herbert machines. There is one Swiss duplicating milling machine and two German tooth planing machines, as well as about five new Czech grinding machines. The assembly lines under Spirakus (fnu) process geared parts (Eingreifbestandteile). Of the ten Vollman lathes, five are new. The milling machines are single-purpose machines from Kurim.[2] Five of the milling machines were designed and built at the factory. The spare parts produced there are polished by hand. Final polishing is done with felt polishing discs run by motor. The following are the machines in the Department II production line:

a. 1 Bulard vertical lathe
3 USSR vertical lathes
6 TOS milling machines
4 Vollman lathes

b. 2 TOS lathes
2 planing machines
5 TOS grinding machines
1 Swiss duplicating milling machine
1 German drawing machine
8 turret lathes (2 Gildemeister, 1 Lamson, 3 Herbert, 1 TOS, 1 Vollman)

c. 5 new Vollman lathes
5 old Vollman lathes
6 new TOS milling machines
5 milling machines made at the plant
15 hand milling machines
15 polishing machines

d. 5 Lamson turret lathes
1 TOS turret lathe
5 hand milling machines
5 hand polishing machines

III. Department III produces small parts (Detaile) and mosaics. The chief of the department is Nemec (fnu). All the machines are small turret lathes. Such items as bolts and nuts are manufactured by women.

IV. Department IV is engaged in the production of diffusers and other parts with large dimensions.

All the departments have in common the following:

A tool issue shop
A measuring-tool issue shop
Chemical control
A grinding shop for tools
A shop for issuing processing agents (Zubereitungsmittelausgabe).

On the east side of the Iranian building there is a storehouse for bars and pipes, a transformer, and above the steps are offices, cloakrooms, and washrooms. The room for the finished motor parts was built not long ago.

4) The new building was constructed in June 1953 and is only one story high. Half of the building contains devices for nickel plating and for eloxidazation; the other half of the building is still empty.

5) This building is four stories high and may only be entered upon presentation of a special pass. MiG motors are assembled in the third story. Small parts for the motor are also produced in this building.

6) The foundry produces small castings. Large castings for the MiG motor are manufactured at the Skoda plant in Prague-Smichov.

7) Various small parts are produced in this building. The building also contains the plant card catalogue, the armory for the factory militia, precision measuring devices, the editorial office of the plant newspaper Signal, and the office of the director of the plant, Cerveny (fnu).

8) This concrete building is seven stories high. The basement is a storeroom for leather, rubber, knives, mills, etc. On the first floor there are garages and the offices of the plant committee and of the main director, Jan Stochl. The offices of about ten officers from the Air Force are located in the second story. These officers were assigned to the plant in order to maintain constant control over production. There are many other offices in the building, as well as the plant work school, the apprentice school, and the apprentice workshops.

9) This building is only one story high and contains six furnaces for annealing iron. The dentist's office and the first-aid station are also located there. No one is allowed in the testing department, although motors are no longer tested there. The motor-testing office is now at Stara Boleslav.

10) Only one half of this building has four stories (sic). The building is used for the storage of finished motors. Also located there are the fire department, the joinery, the smithy, and the electrical workshop, lacquerers, sheet-metal workers, and upholsterers. The building also contains a school workshop for new employees who have to be "retrained" before they can be assigned to production lines. New employees usually spend three weeks in this school. The social and propaganda department are next to the porter's lodge. Across the street there are wooden barracks in which old equipment is stored. This old equipment is for the main part machinery which was used in producing old piston-type motors.

4. In early 1952, when MiG motors were about to be produced, about 10 Russian experts came to the Motorlet plant and remained about one year. They wandered through the factory and observed production. The Russians lived in a villa in Dejvice and allegedly received a salary of about 30,000 Czech crowns (at that time a worker received about 5,000; an engineer, about 8,000). In the factory, which had for years produced the world-famous Walter aircraft motors, the Russians were not very well thought of. When they were asked something, they usually had to refer the person asking the question to one of the Czech technicians. After their departure, no more Russians came to the plant.

5. Eighty percent of the workers, namely, those who work with the machines, are not technically trained personnel. Only the shop foremen and supervisors are technicians. The plant employs a total of about 5,000 people.

6. Work is carried on 24 hours a day in three shifts. The average salary at the plant amounts to six Czech crowns per hour. The morale of the workers is very poor, mainly because "retrained" workers were forced to leave better jobs and offices in order to come to the plant. At least 80 percent of the factory personnel is anti-Communist, and anti-Communist mottoes are frequently found written on the walls. Many employees work in offices, and a high degree of bureaucracy prevails.

7. About 300 persons are employed in Department II. Among them are the following: one department chief, eight foremen, one dispatcher, six planners, one technician, one Teilreferent, three timekeepers (Akkord-Zeitmesser), three officials, twelve supervisors (Vorarbeiter), one draftsman, ten checkers, three women, six assistants, and a large number of employees who work with machines. Leading persons in the department hold daily conferences with the plant management. 25X1

9. The chief product manufactured by the Motorlet plant is the MiG-15 motor.[3] The plant is capable of producing about six motors per day. Because of a shortage of material in early September 1953, only about three motors per day were being produced. In 1952, 210 finished motors were delivered; in 1953, 420 finished motors had been delivered by 1 August. There are enough finished component parts in the factory to construct 1,500 motors. The chief bottleneck is drive shafts (hridel). The drive shafts are produced from Vitrix steel which is delivered to Motorlet by Poldina Foundry in Kladno. The last deliveries of drive shafts were manufactured from different material, and when a final test of material was undertaken it was discovered that the material ripped and the entire group of 50 drive shafts were rejected. A second bottleneck is blades for rotor turbines. Because of a shortage of cobalt, no material was delivered and for that reason production of blades was halted on 1 June 1953. In the future Poldina Foundry is to deliver material which contains only a little cobalt.

10. On 12 September 1953 plans were announced to produce a new type of MiG motors. This motor is stronger, and two motors are to be installed into each airplane. Six of the new motors were to be finished by the end of 1953. Many of the component parts are already being manufactured at the factory and many are to be produced in a factory in Turcansky Svaty Martin.[4] Production of new motors is to be speeded up, and interest in the new motor seems to be extremely great.

11. Expansion of the Motorlet plant has been under way for some time. Many construction projects were completed in the summer of 1953, and in the fall of 1953 new buildings were being erected. For some time subterranean workshops have been under construction in a steep hill called Cerny vrch in Prague-Kosire. Motorlet is to use these workshops in the event of war.

12. The Poldina Foundry in Kladno supplies all steel castings from high-grade steel which are used by the Motorlet plant. Castings, compressor wheels, geared parts, and blowers are delivered by the Skoda Works in Prague-Smichov. Outlet nozzles are produced by an unidentified plant in Marianske Udoli near Olomouc. All jets (Zündgerät) are produced by the PAL factory in Jihlava.[5] USSR supplies part of the discs and blades for turbine motors which are used at the Motorlet plant.

13. When the motors are finally completely assembled, they are packed into large boxes and are shipped to a place near Stara Boleslav where they are tested (gebremst). Each motor runs for sixteen hours on a test stand. The new testing installation makes it possible to test many motors at the same time. The noise from the motors is muffled by a series of chambers, but can still be heard clearly in the vicinity.

14. Motors are built into the planes at the Rudy Letov factory in Letnany, and finished planes are flown to the test airfield at Odolena Voda (N50-14,E14-25) near Panenske Brezany (051/F70).

[redacted] Comments: 25X1

1. More fully known as the Jan Sverma Plant of Motorlet, National Enterprise (Motorlet, n.p., zavod Jana Svermy), Prague-Jinonice.

2. Presumably TOS Kurim.

3. The information in paragraphs 9-14 of this report should be compared with information [redacted] a report from the same source on the same subject. 25X1

4. Possibly garbled. Component parts should perhaps read "preparatory items".

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5. Otherwise known as Motorpal, National Enterprise, in Jihlava.

Attachment
Sketch of the Motorlet Plant in Prague-Jinonice